

I have been employed in the vehicle navigation industry for the past 13 years. I have watched vehicle navigation evolve from a novel, ahead of its time idea to a mainstream, indispensable tool used by millions of people. This has been possible because the United States Department of Defense wisely made GPS ubiquitously available. While there are those who claim the GPS industry is receiving what is effectively a large subsidy because the government provides the space and control segments for GPS without user charge, I would counter with a statement I read somewhere about 10 years ago stating the taxes collected from all the companies making up the "GPS industry" more than pay for the cost of the system.

I not only develop vehicle navigation systems, I use them. As an active geocacher (if you are unaware of the sport of geocaching, please visit [www.geocaching.com](http://www.geocaching.com) to learn more), I own and use several handheld GPS receivers. Some of them are over 11 years old and still function well. I use them while biking, skating, and hiking, as well.

As GPS receivers have become smaller, cheaper, and more sensitive, they have found new applications. They are now available in small, easy to use, and inexpensive modules which can be purchased from companies such as SparkFun and Adafruit Industries. Students and makers have used them to make self-navigating robots, high-altitude balloon trackers, homebrew UAVs, and "reverse geocaches". Amateur radio operators also make use of GPS receivers in applications such as APRS trackers as well as frequency references for transceivers. APRS tracking has become so popular, there are now 2m/70cm band handheld transceivers available with built-in terminal node controllers and GPS receivers for this purpose.

GPS is used in many ways, from vehicle navigation to timing reference to surveying to emergency location to air traffic control. Again, this is all possible because the United States Department of Defense wisely made GPS ubiquitously available.

LightSquared's ATC modification proposal (ref. SAT-MOD-20101118-00239) would appear to effectively eliminate the ubiquitous availability of GPS throughout the United States. The results of the tests from the Technical Working Group as well as the National Space-Based Positioning, Navigation, and Timing Systems Engineering Forum confirm this. This proposal, as it stands, must be rejected, or we will lose the ubiquitous availability of GPS throughout the United States, and with it, all of applications.